ABSTRACT

An adapter that buffers received symbols and automatically determines and corrects for skew between lanes is disclosed herein. In one embodiment, the adapter is a part of a network that includes a first and second devices coupled together by a communications link having multiple independent serial lanes. The first device initiates communication by repeatedly transmitting a training sequence that includes a start symbol for each lane. An adapter in the second device includes a set of buffers each configured to receive the symbols conveyed by a corresponding serial lane. The buffers are coupled to a reconstruction circuit that removes one "symbol group" at a time from the buffers. A symbol group is made up of one symbol from each buffer. The reconstruction circuit removes symbol groups until a start symbol is detected. If the start symbol is not detected in all buffers, output from the buffers having start symbols is temporarily suspended. Symbol removal from the other buffers continues until start symbols are detected, or until a limit is reached. If start symbols are detected in all buffers, the suspension is lifted, and symbol group retrieval resumes with skew having been eliminated. Otherwise, if the limit is reached, the buffers are cleared and the process is retried from the beginning.